First question: Put (√) or (X):

1- Solve the problem means the aim or result is accessed. (x)

2- The problem is reaching a goal or a specific output is required through sequential steps and activities and specific data. (x)

3- Preparation of solution steps (algorithm) is the first stages of solving the problem (x)

4- Determine the required output and available inputs and arithmetic or logical processes is the first stages of the problem and called (problem definition). (√)

5- Flowchart is a diagram that uses standard graphical symbols; to illustrate the sequence of steps required for solving of a problem. (√)

6- Representation of the steps to resolve the problem with the Flowchart flow more difficult to resolve the problem for programmer. (x)

7- The flow of steps will always be from top to bottom or from left to right. (x)

8- The variable where to store the value is located on the side of equation. (x)

9- Called on the experience of the program on the data results known in advance is (documentation stage). (x)

10- The symbol ……………….is used when a question has more than one alternative. (√)

11- Two paths (lines) should come out from the diamond ………………... Symbol. (√)

12- The symbol [   ] is used in the flowcharts to indicate to decision. (x)

13- Program Doumentation is useful when severl people share desiging the same program. (√)

14- The (algorithm) it means Identify the problem or access to specific output. (x)

15- You can use any Geometric shape to represent Algorithms when drawing flowcharts (x)

16- Flowcharts can be drawn using software only and can't be drawn on paper (x)

17- The symbol …(………)…is used to represent both the start and the end (√)

18- The rectangle symbol represents only one processing operation (x)

19- The flowchart must be complete and clear (√)

20- We can't use the flow line to return to a previous step in the flowchart (x)

21- It's wrong to write a program without making the right algorithm for it (√)

22- Every symbol has a meaning and permanent use in all the flowchart and doesn't change from one to another (√)

23- To represent the inputs in the flowcharts, use enter or Print (x)

24- The symbol [/ /] is used in the input output. (√)

25- We must test the program validity before documenting it (√)

26- From the steps of problem solving are the inputs, outputs, and processing operations. (√)

27- $(M = Z + Y + 3)$ is an assignment statement. (x)

28- $(X = X + Y - 3)$ is an arthimetic operation not an assignment statement. (x)

29- Variable is a location in the computer memory that has a certain title and its value changes during the program running. (√)

30- The natural direction of the processes and data in flowcharts are from left to right and from top to bottom. (√)

31- The natural direction of the processes and data in flowcharts are from left to right and from top to bottom. (√)

Second question: complete the following statements with appropriate choices:

1- Write the all steps that have been taken to solve the problem are called a stage - - - - - - - -
   a- The documentation.
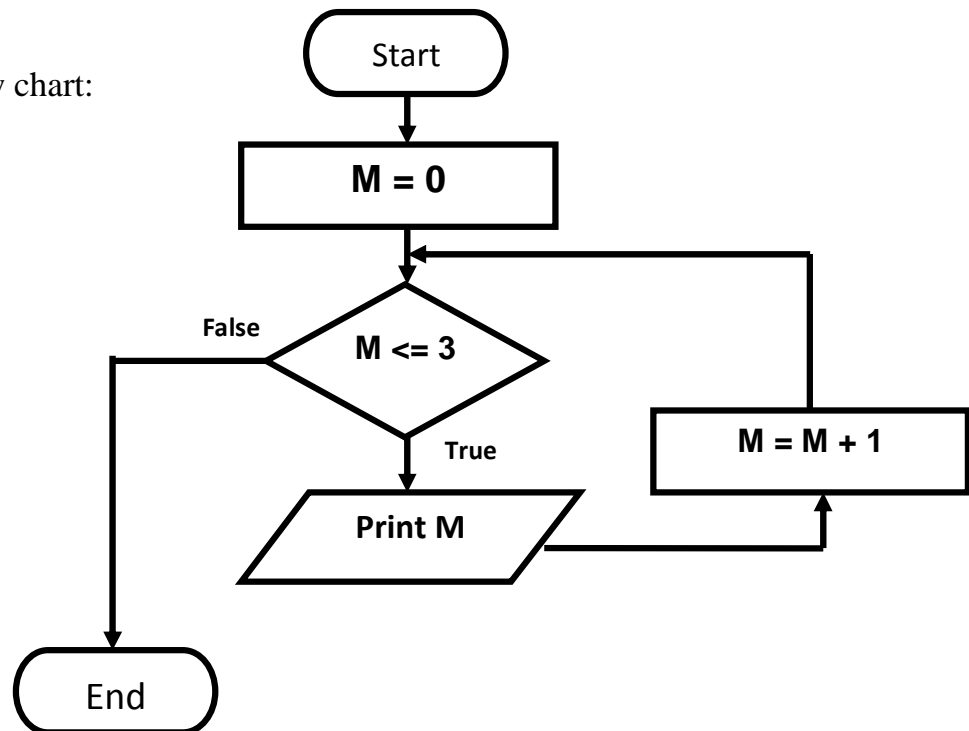   b- Design the program.
   c- Program testing.

2- Are represented by the term **Sum = A + B** in the Flowchart through the Figure …………..

   A) (parallelogram shape)

   B) (rectangle shape, highlighted yellow)

   C) (rounded shape)

3- In the following flow chart:

Start

M = 0

False

M <= 3

True

M = M + 1

Print M

End

(The number of iterations) to print the value of (**M**) is……………………….
         a)   2   b)   3   c)   4

4- In the previous question the value of (**M**) after the end of the repetitive loop equals ……..
         a) 2   b) 3   c) 4

5- Specification and meal preparation required and determine the available data is………..
         a) Problem definition.
         b) Algorithm.
         c) Flow Chart.

6- The Flowchart for resolving the problem of printing the numbers from 1 to 11 contain…..
   a) Sequential
   b) Branching
   c) Looping

7- View steps to resolve the problem of agreed forms of geometry called……….
   a- Flowchart   b- Algorithm   c- Interface

8- Any of the following forms of decision in the Flowchart ……..
   a)
   b)
   c)

9- …………… is used to express a comparison or choice.
   (Decision   –   Flow line   –   Input / Output)

10- ………….. means a store the computer memory that has a certain title and its value changes during program.
   (Assignment Statement -   Variable –   Algorithm)

11- …………. Is a set of logically ordered steps which are applied for achieving the required target by using certain inputs.
   (Assignment Statement -   Variable   –   Algorithm)

12- ………… means reaching a specified target using given inputs
   (Problem -   Problem solving –   Algorithm)

13- Is used to convert the flowchart into a program that the computer can understand.
   (Programming language -   Problem solving –   Algorithm)
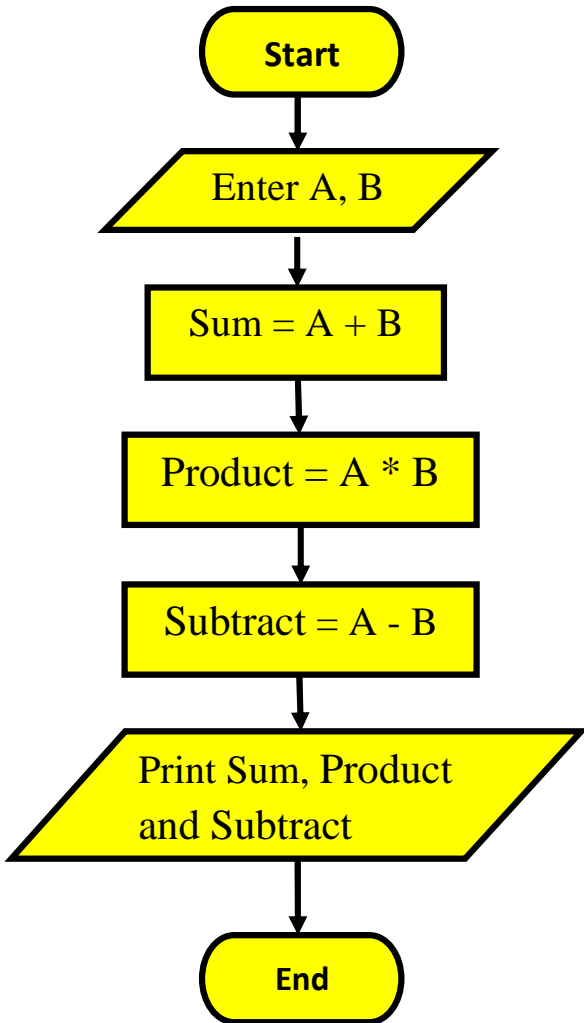
Q.3-The Figure shows a flow chart for calculating the area and circumference for a circle ,given: the radius of the circle R

A= 3.14 * R * R   C= 2 * 3.14 * R
START
END
OUTPUT A   OUTPUT C
READ R

START

READ R

A= 3.14 * R * R

OUTPUT A

END
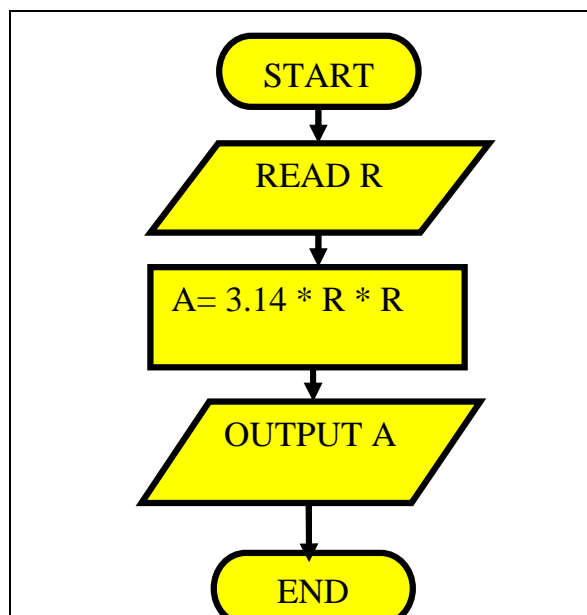
Q.4: Write down the Algorithm, and draw a flowchart that will calculate any one of these operations (Sum, Product or Subtract) of two numbers entered by user and display the result.
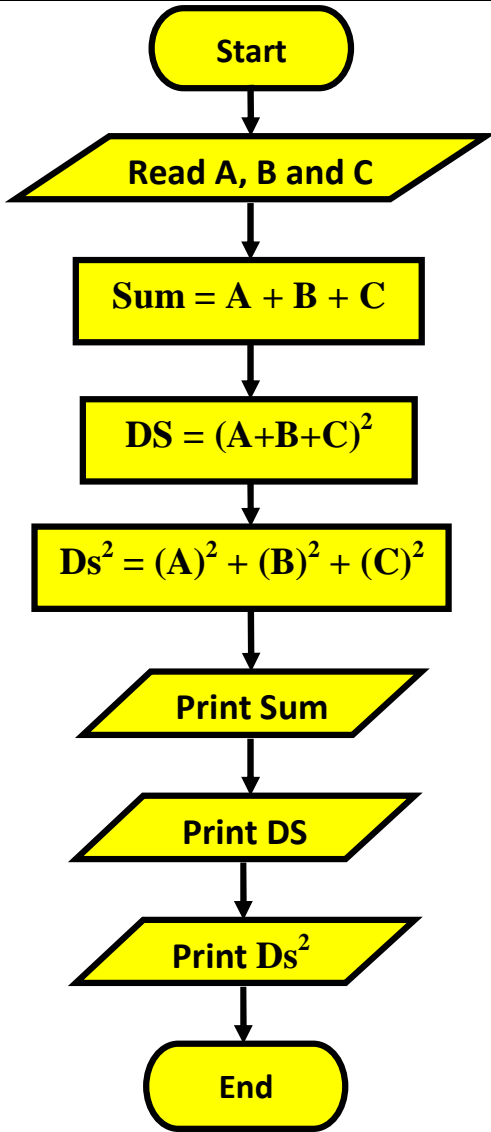
Algorithm	flowchart
1- Start 2- Enter A, B 3- Sum = A + B 4- Product = A * B 5- Subtract = A - B 6- Print Sum, Product and Subtract 7- End	**Start** ↓ Enter A, B ↓ Sum = A + B ↓ Product = A * B ↓ Subtract = A - B ↓ Print Sum, Product and Subtract ↓ **End**

Q.5: Write the solution steps and complete the drawn flowchart to calculate the sum of three numbers A, B, C, then calculate Sum square and finally calculate Numbers squares.

Bearing in mind that the equation of the sum is: Sum = A + B + C

Sum square is: $DS = (A+B+C)^2$
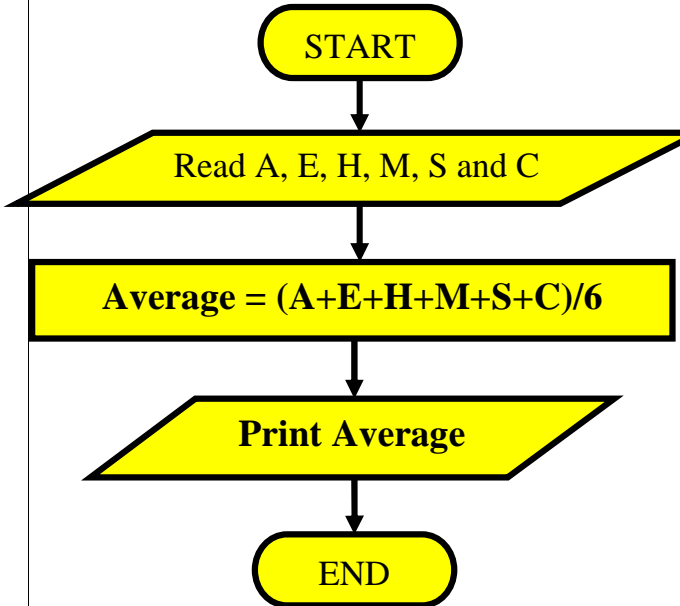
Numbers squares is: $Ds^2 = (A)^2 + (B)^2 + (C)^2$

Algorithm	flowchart
1- **Start**	Start
2- **Read A, B and C**	Read A, B and C
3- **Sum = A + B + C**	$Sum = A + B + C$
4- **DS = (A+B+C)²**	$DS = (A+B+C)^2$
5- **Ds² = (A)² + (B)² + (C)²**	$Ds^2 = (A)^2 + (B)^2 + (C)^2$
6- **Print Sum**	Print Sum
7- **Print DS**	Print DS
8- **Print Ds²**	$Print\ Ds^2$
9- **End**	End

Q.6: Write down the Algorithm, and draw a flowchart that will calculate the Average of the total degrees of a student.
Bearing in mind that the equation of the Average is:
Average = (A+E+H+M+S+C)/6.

Algorithm	flowchart
1- START 2- Read A, E, H, M, S and C 3- **Average = (A+E+H+M+S+C)/6** 4- **Print Average** 5- END	START Read A, E, H, M, S and C **Average = (A+E+H+M+S+C)/6** **Print Average** END

Q.7: In the following table; type the number in front of each command that refers to its correct place in the "Flowchart" to determine if the input number is (even or odd)

Flowchart		
Start → 5 → 1 → 2 (No → 4) (Yes → 3) → End	**(1)**	Res = N mod 2
	(2)	Is res ≠ 0
	(3)	Output "number is odd"
	(4)	Output "number is even"
	(5)	Input number N
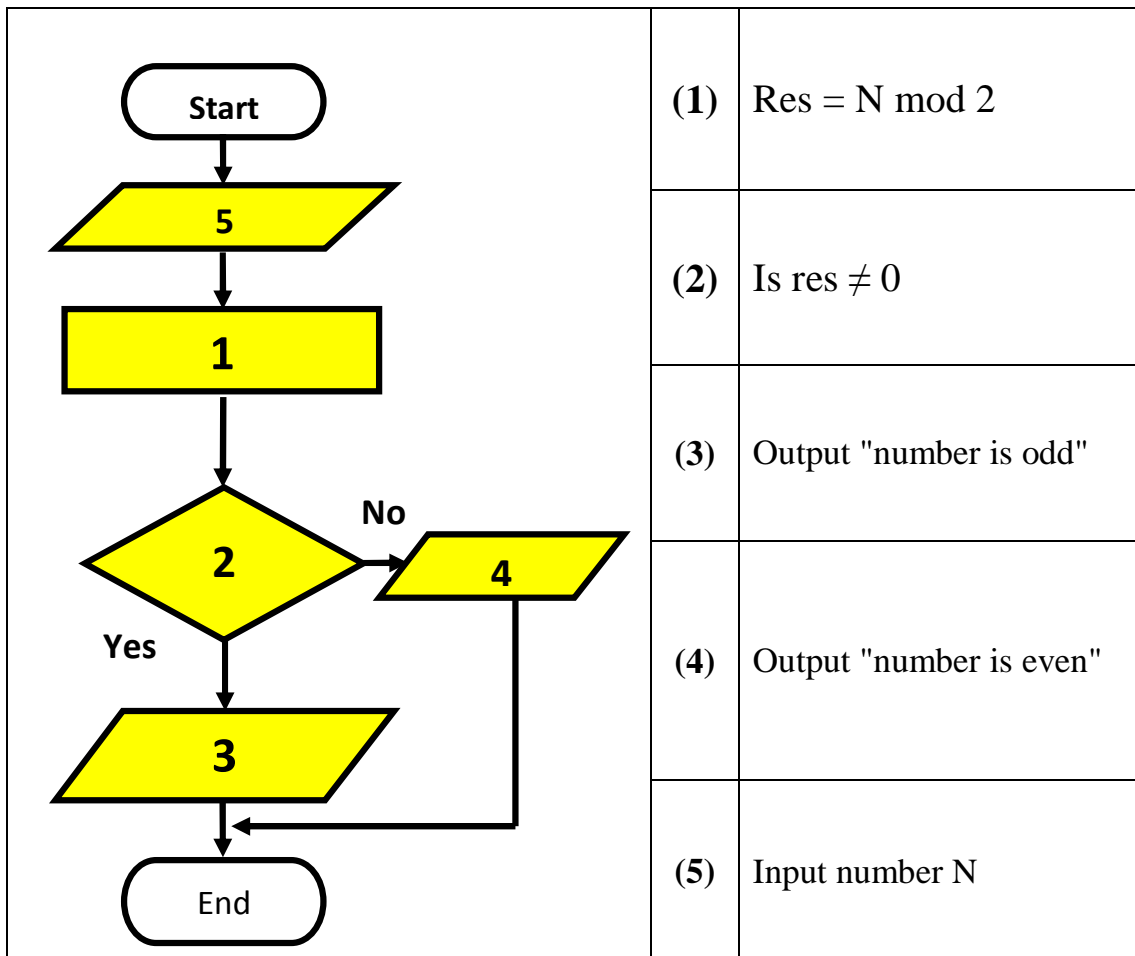
Q.8: The Figure shows a flow chart for calculating the division of two numbers

1	Read number1
2	is number2=0
3	Print "not defined"
4	Start
5	End
6	Read number2
7	Output the result
8	result=number1/number2
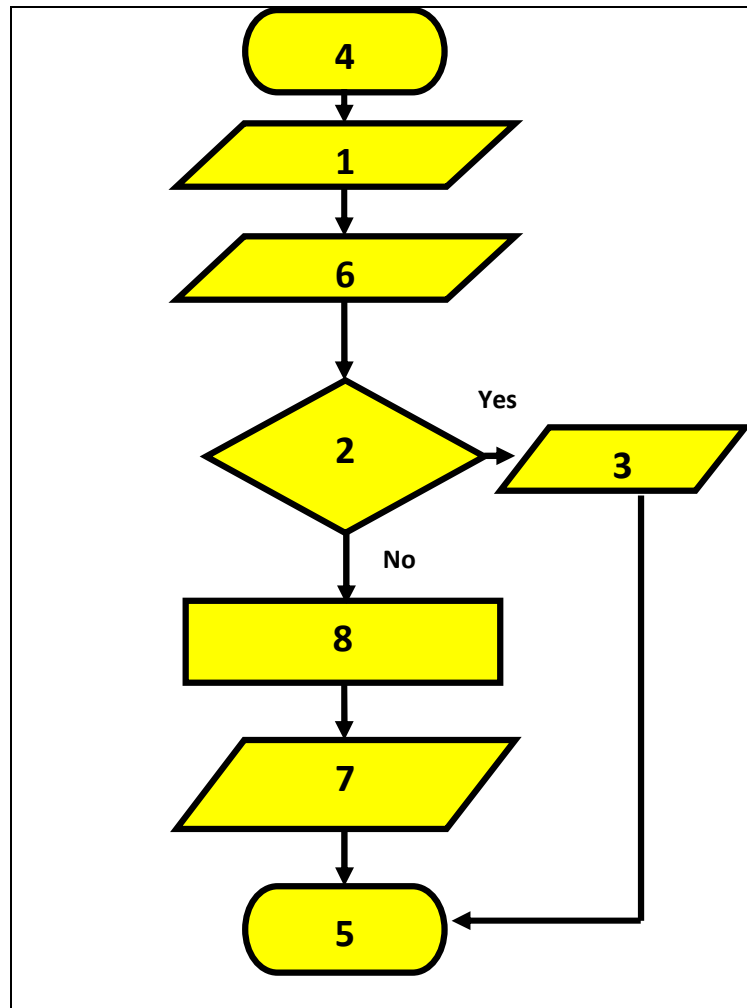
Q.10: The Figure shows a flow chart to find the maximum number among two numbers .In the case of equality output the message "equal"

IS A=B
IS A > B
Output "equal"
Read A,B
Output B

Start

Read A, B

No — IS A=B — Yes

No — IS A > B — Yes

Output "equal"

Output B

Output A

End
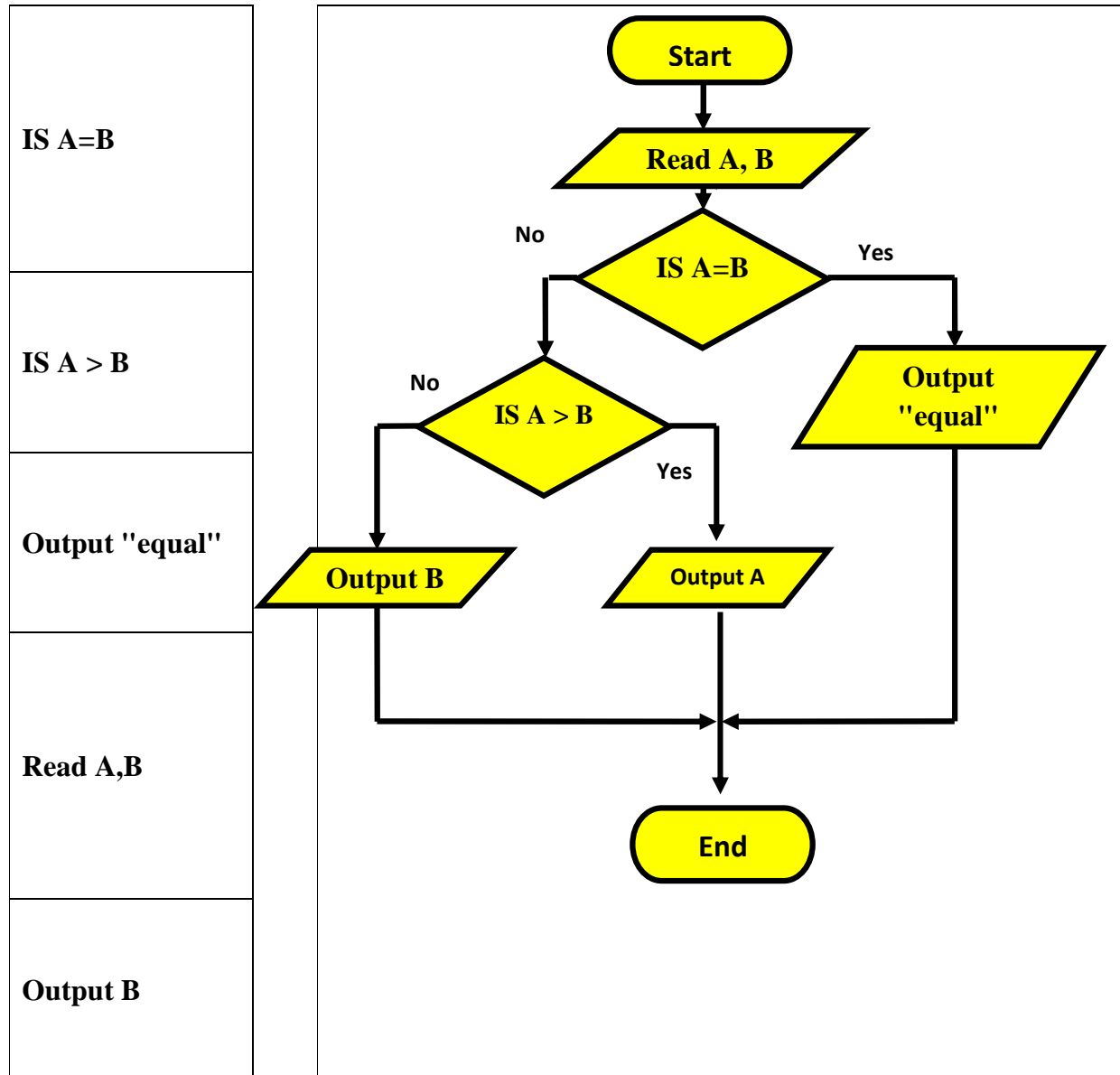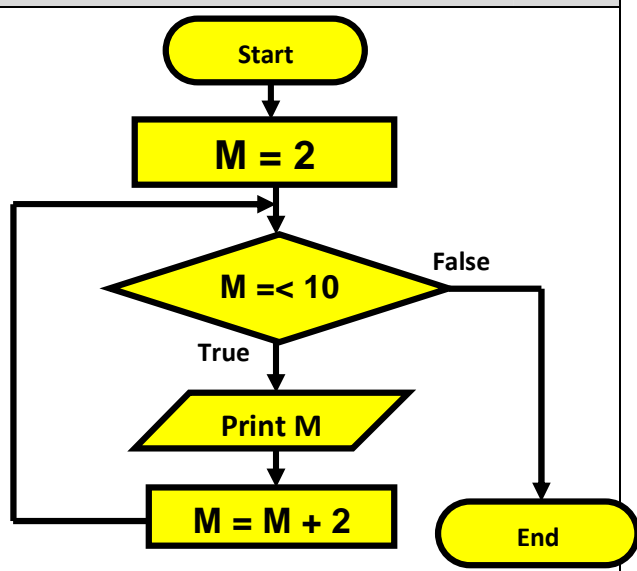
Q.11: The Figure shows a flow chart that will print even integer numbers from 2 and 10.

1	**N = N + 2**
2	**N > 10**
3	**Sum = 0**
4	**Sum = Sum + N**
5	**Print Sum**
6	**N=2**

Start

6

3

4

1

No

2

Yes

5

End
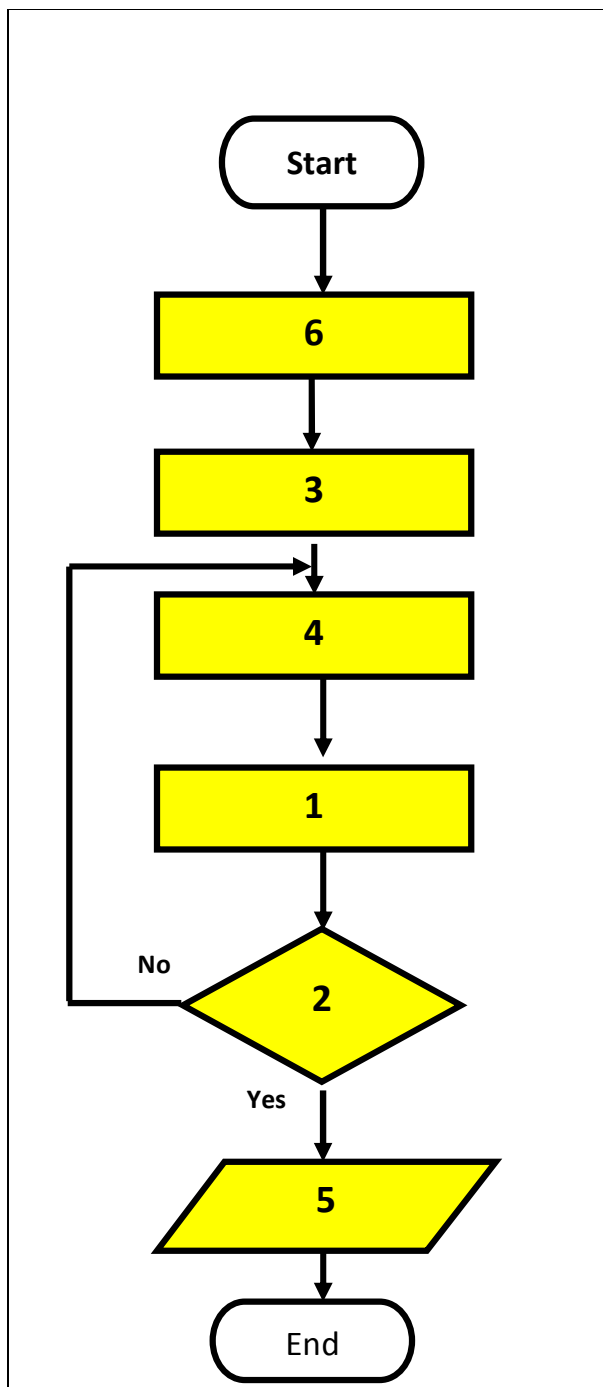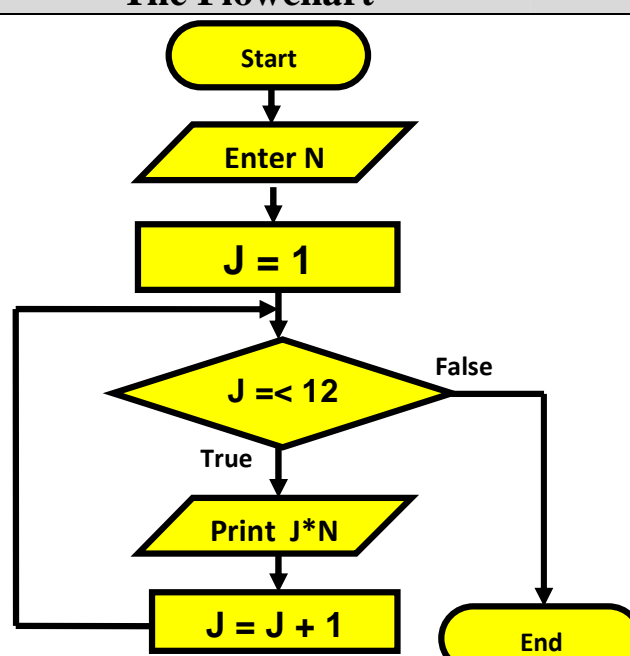
Q.12:

a) Draw a flowchart to print out even numbers from **2** to **10**.

The Algorithm	The Flowchart
1- Start 2- M=2 3- **If** M<=10 **Then** 3-1 Print M 3-2 M=M+2 3-3 Go To step(3) 4- End	 Start M = 2 M =< 10 (True / False) Print M M = M + 2 End

b) Draw a flowchart to print out the multiplication table for any number**.**

The Algorithm	The Flowchart
1- Start 2- Enter N 3- J=1 4- **If** J<=12 **Then** 4-1 Print J*N 4-2 J=J+1 4-3 Go To step(4) 5 End	 Start Enter N J = 1 J =< 12 (True / False) Print J*N J = J + 1 End

Q1 3: **A) type the value of the variable after the out of the loop iteration:**

```
                    ┌──────────┐
                    │  Start   │
                    └──────────┘
                         │
                    ┌──────────┐
                    │  N = 1   │
                    └──────────┘
                         │
       False         ╱─────────╲
    ┌────────────── │  N =< 12  │ ◄──────────┐
    │                ╲─────────╱              │
    │                    │ True          ┌──────────┐
    │                    │               │ N = N + 1│
    │               ┌──────────┐         └──────────┘
    │               │ Print N*3│ ──────────►  │
┌──────────┐        └──────────┘
│   End    │
└──────────┘
```
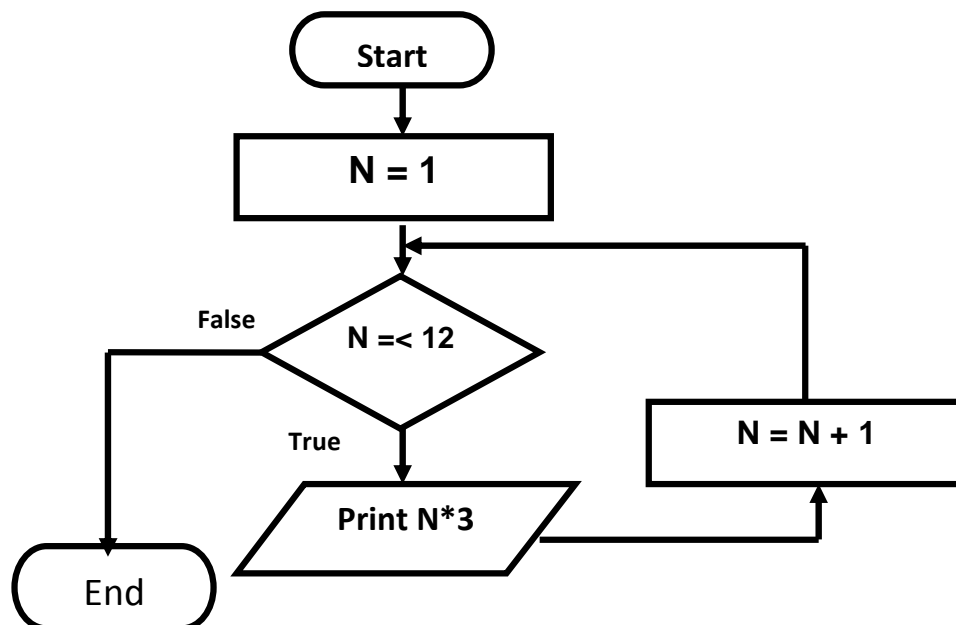
The value of the variable N = …. **13** …

B) Type the value of the variable after the out of the loop iteration:

```
                    ┌──────────┐
                    │  Start   │
                    └──────────┘
                         │
                    ┌──────────┐
                    │  M = 2   │
                    └──────────┘
                         │
       False         ╱─────────╲
    ┌────────────── │  M =< 10  │ ◄──────────┐
    │                ╲─────────╱              │
    │                    │ True          ┌──────────┐
┌──────────┐             │               │ M = M + 2│
│   End    │        ┌──────────┐         └──────────┘
└──────────┘        │ Print M*3│ ──────────►  │
                    └──────────┘
```
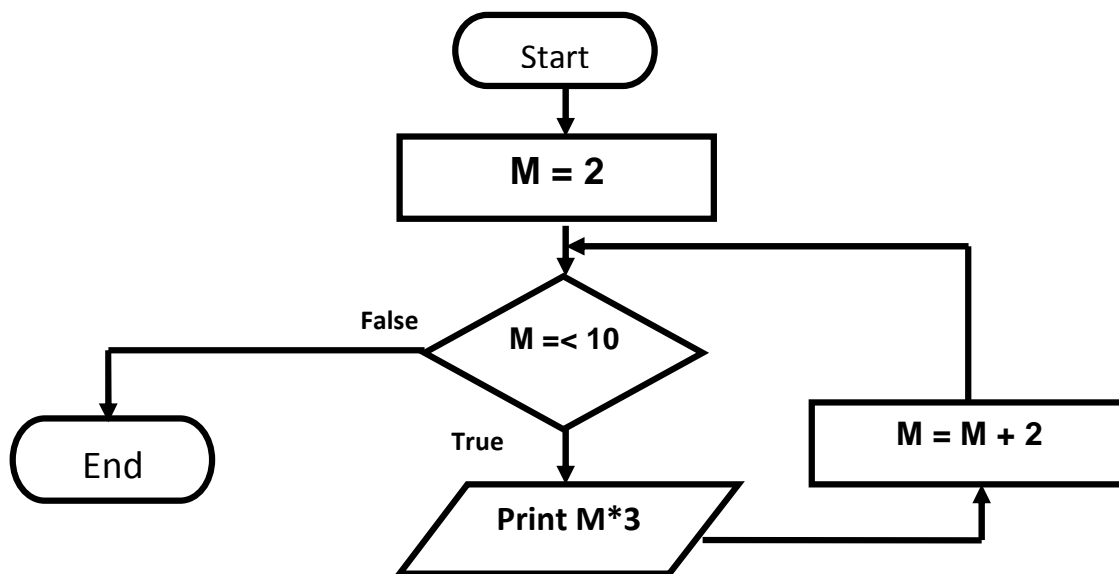
The value of the variable M = **12**

C) Type the value of the variable after the out of the loop iteration:

```
        ┌─────────┐
        │  Start  │
        └─────────┘
             │
        ┌─────────┐
        │  N = 1  │
        └─────────┘
             │
        ┌─────────┐
        │ Sum = 0 │
        └─────────┘
             │
   ┌──────────────────┐
   │  Sum = Sum + N   │
   └──────────────────┘
             │
   ┌──────────────────┐
   │   N = N + 2      │
   └──────────────────┘
             │
  No      ◇ N > 10 ◇
             │ Yes
        ╱ Print Sum ╱
             │
        ┌─────────┐
        │   End   │
        └─────────┘
```
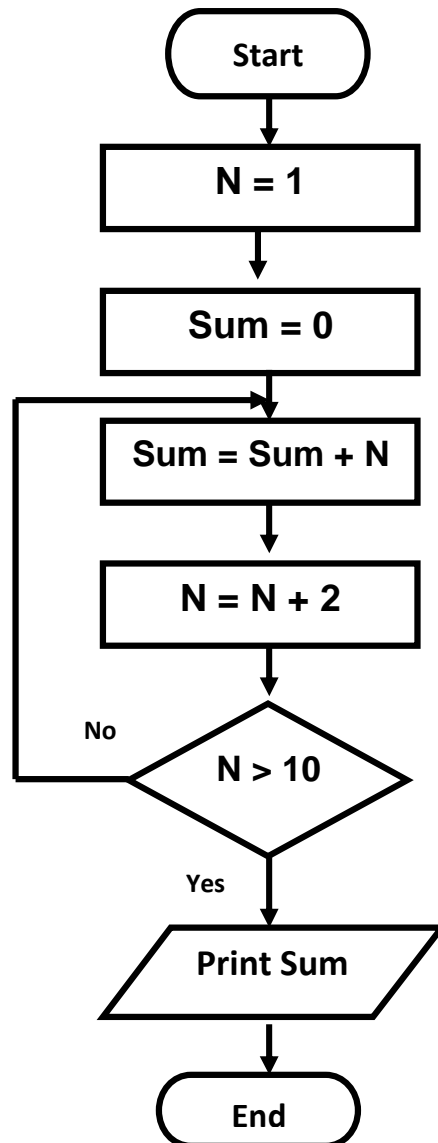
The value of the variable N = **11**

Q14: Complete the following:

1- **Terminal** Symbol has one flow line leaves it at the beginning and one flow line enters it at the end.

2- …. **Input / Output** Symbol is used for input / output.

3- . **Decision** Symbol is used for comparing two values.

4- **Process** Symbol is used when writing the arithmetic operation.

5- **Problem Solving** Is an aim or output which is needed to be achieved through applying a set of steps in a certain order.

6- **Flowchart** facilitates converting the steps of a problem solving in a program through one of the programming languages.

7- To represent the outputs in the flowchart, use (**Output**) or (**Print**).

8- **Define the Problem** is specify the required output and available input and processing the equations.

9- **Problem** means attain to objective or an output through a sequence of steps and activities.

10- In **data** the right side of the equation contains the value which needs to store.

Q15: Complete the following steps to get the result of dividing two numbers:

1- Start
2- Enter N1, N2
3- **If N2 = 0**   Then
    3-1   Print **Unknown**
    3-2   Go to step **5**
4 – Else
    4-1   R = **N1 / N2**
    4-2   Print **R**
5 - End

Q.16: Re-arrange the following steps for problems solving:

- Design the program on computer.   (3)
- Program Documentation.   (5)
- Test the program validity and correct errors.   (4)
- Define the Problem.   (1)
- Prepare the Algorithmic solving steps.   (2)

Q.17: Give one word

1. A group of instructions ordered in a certain manner, and when they are executed, we reach a certain target. (**Algorithm**)

2. Specify the required output and available input and processing the equations. (**Define the Problem**)

3. A diagrammatic representation which explains the order of instructions required to solve problem. (**Flowchart**)

4. To record all the applied steps for problem solving. (**Program Documentation**)

Q.18: Complete the following sentences from the brackets:

(Flow line – Terminal – Decision – Program Documentation)

a) **Terminal** symbol is used in the start and end of the flowchart.

b) The last step in the problem solving is **Program Documentation**

c) **Flow line** symbol is used to connect the symbols of the chart

d) **Decision** symbol is used to represent a question with (Yes / No) answer

Q.19: Circle the wrong symbol:

1- (⬭ - ⬭ - ▭)

2- (▭ - ◇ - ◇)

3- (▱ - ▱ - ▱)
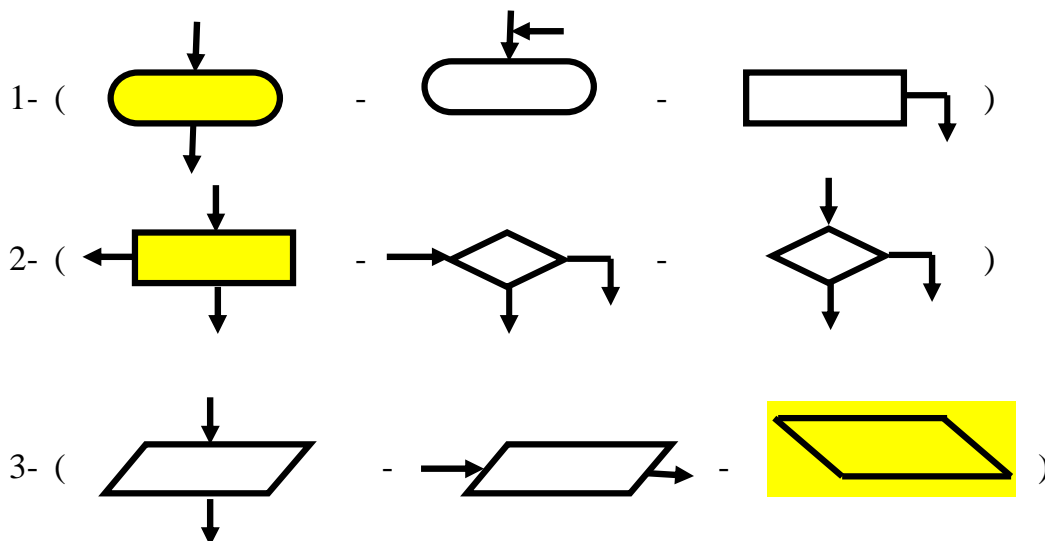
Q.20:Complete the following flowchart to find the maximum number among three numbers.

Start

Read A, B, C

Yes ← **A > C** → No **B > A** Yes → **B > C** → No

No

Yes

Print A

Print C

Print B

End
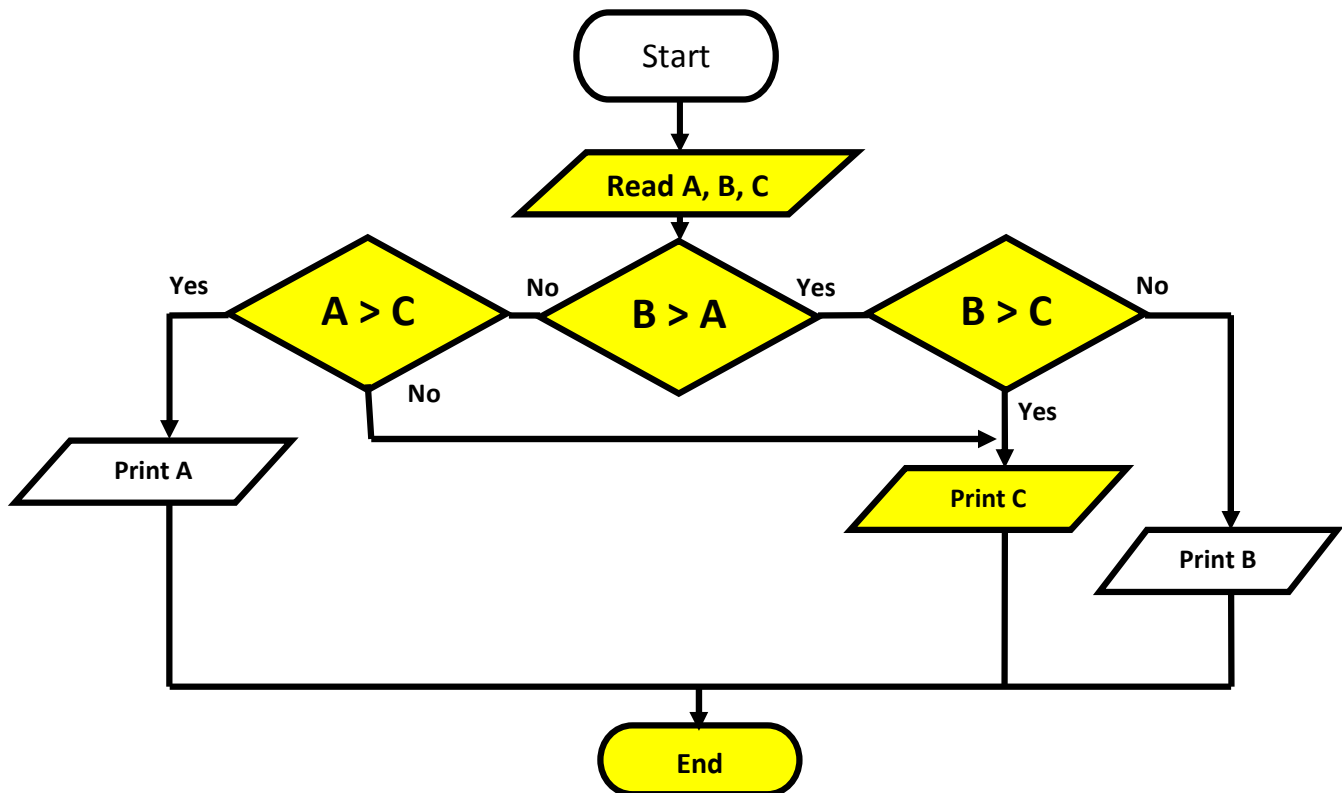
Q.21: Complete the following flowchart to read three side's length of a triangle "B", "C" and "D" then find perimeter of triangle.

Bearing in mind that the equation of the perimeter is: $P = B + C + D$

Start

Input B, C, D

$P = B + C + D$

Print "P"

End
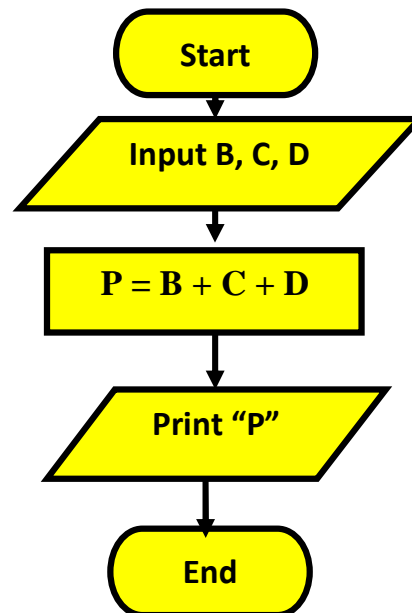
Q.22: Draw a flowchart that read a temperature in Fahrenheit's degree and convert into Celsius degrees, using the formula:

$$C^o = 5/9 (F^o - 32)$$

```
        ┌─────────┐
        │  Start  │
        └─────────┘
             │
        ┌──────────┐
        │ Input "F" │
        └──────────┘
             │
   ┌────────────────────┐
   │ C° = 5/9 (F° − 32)  │
   └────────────────────┘
             │
       ┌──────────┐
       │ Print "C" │
       └──────────┘
             │
        ┌─────────┐
        │   End   │
        └─────────┘
```
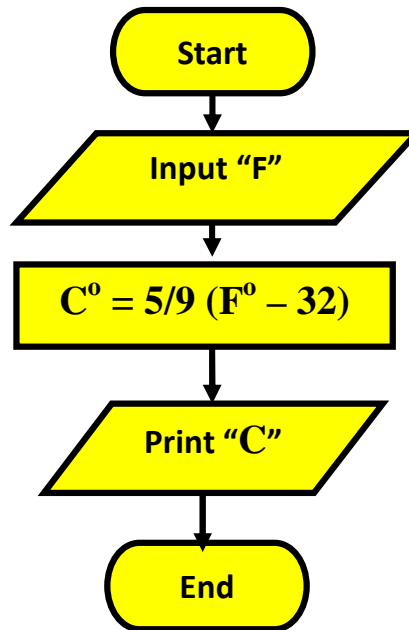
Q23- Re-write the following sentences after correcting the underline:

1. **Algorithm** represents achieving a certain, needed aim or output through sequent steps and activities and certain inputs

   …**Problem Solving** ……………………………………………….

2. **Programming Languages** is asset of logically ordered steps which are applied to achieve the required aim

   …**Algorithm** …………………………………………………..

3. To represent branching in the flowchart, use **Processing** symbol

   ……………………………………………… **Decision** …………………..
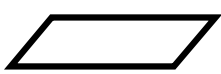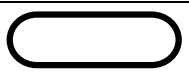
4. The data of a problem with previously known outputs used for detecting errors in the **Program Documentation**

   Testing the program …………………………………………………..

Q.24: Draw the suitable symbol in the following table:

	Statement	Symbol
1	A > B	◇
2	H = R + 2	▭
3	Read N1, N2	▱
4	Start	⬭
5	Output Sum	▱

Q.25: Match from (A) with the suitable in (B):

	Statement		Symbol
1	Flowchart	(4)	To represent data input in the flowchart
2	▭	(2)	To type an assignment statement or arithmetic operation.
3	◆	(5)	To represent the start and the end of the solution.
4	▱	(1)	It is a diagrammatic representation that illustrates the sequence of operations to be preformed to get the problem solving.
5	⬭	(3)	To represent a statement, question or choice.

Q26- Match from (A) with the suitable in (B)

	A	B
1	◇	Connect Flowchart symbols with each other (…3…)
2	▭	Used at start and end of Flowchart (…4…)
3	→	Used in decisions (…1…)
4	⬭	To enter data (…5…)
5	▱	For processing statement (…2…)

Q.27: **What is the result of the following flowchart?**

Printing the numbers from 1:4

```
                                          H = 1
                                            │
        ┌──────────────────────────────────┘
        │
   H = H + 1
        ↑
        │
   Print H ◄──── Yes ──── Is H < 5
                              │
                             No
                              │
                            End
```
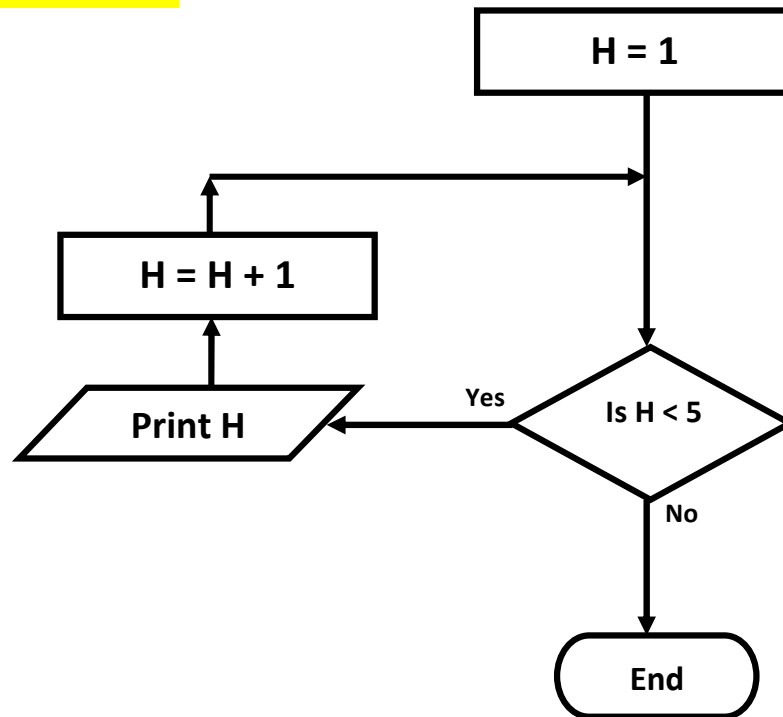
Q.28: Complete the following flowchart which represents entering two numbers, then dividing and representing the result.

```
Start → Read N1 → Read N2 → N2=0 ── No ── R = N1/N2 → Print R
                              │                           │
                             Yes                          │
                              │                           │
                    Print "Unknown" ──────────────────────┤
                                                           │
                                                         End
```
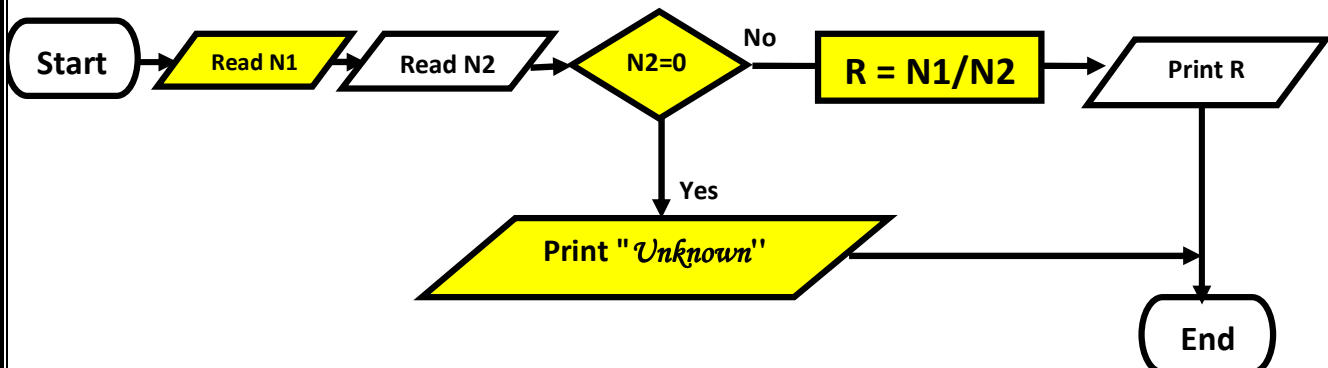
Q.29. : Re-draw the following flowchart after correcting the errors:

Start

Result = N1 + N2

Input N1

Input N2

Output Result

End

Start

Input N1

Input N2

Result = N1 + N2

Output Result

End
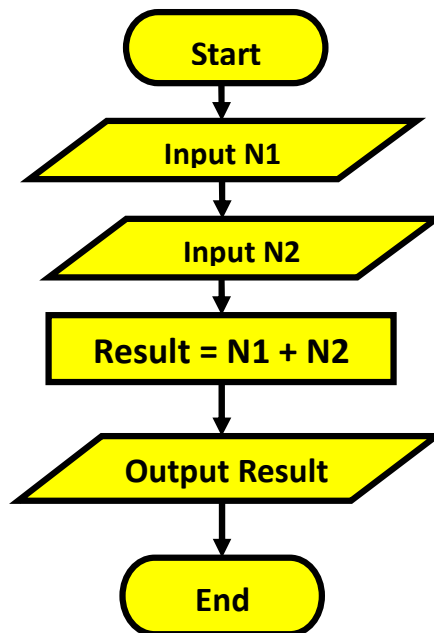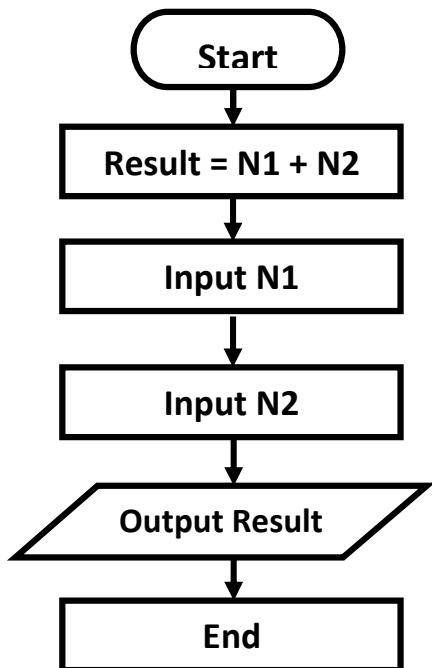
Q.30:: Draw a flowchart to calculate the sum of odd numbers in the sequence
Sum = 1 + 3 + 5 + ……….. 25

Start

N = 1

Sum = 0

Sum = Sum + N

N = N + 2

N > 25

No

Yes

Print Sum

End
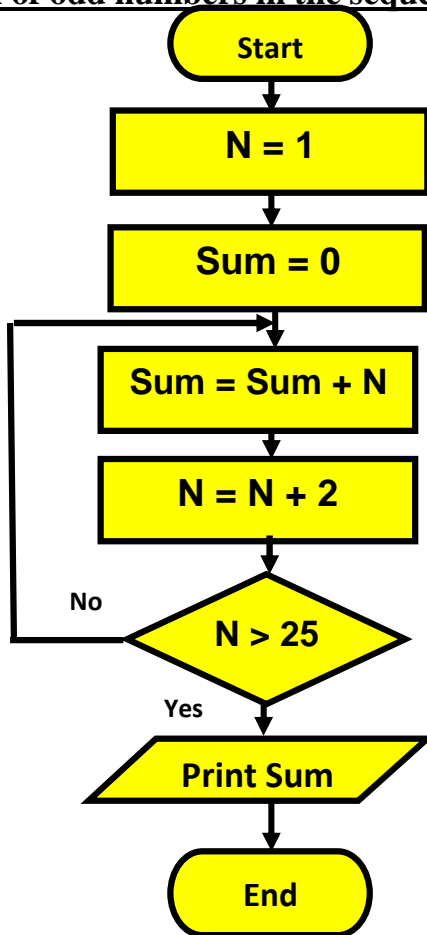
Chapter 2

Question 1: Put (√) or (x):

1- Visual Basic language feature is not Object orientated Programming. (**X**)

2- Visual Basic language is used to create Web applications or Windows applications. (√)

3- Using the programming language is written orders and instructions in the English language that the computer can handled directly. (**X**)

4- The example of Windows applications **Notepad** program. (√)

5- Clicking on one of the buttons so-called call property. (**X**)

6- Object it is the blueprint, from which the individual class is created. (**X**)

7- Object has Properties, Methods, and Events. (√)

8- Class contains the object definition. (√)

9- Object when there is a copy (**instance**) of the class its own. (√)

10- Can create more than one class of the same object. (**X**)

11- Through the .Net can produce desktop applications and mobile applications. (√)

12- CLR indicating System Class Libraries. (**X**)

13- Framework consists of the CLR, Compilers, System Class Libraries and other tools. (√)

14-Framwork provides design and running environment, for .Net Applications. (√)

15- You can call **Office** software package it Integrated development environment (**IDE**). (**X**)

16-Form window is a designed the program interface or application. (√)

17-one of the tools that it cannot be placed on the form window is the (Label) control. (**X**)

18- Not required to be there for the properties of the controls that draw on the window form (**X**)

19- In (IDE) screen, displayed properties differ upon the selected element. (√)

20- Toolbox displays a list of files and folders of the project or the projects within the solution. (**X**)

21-When you create a new project, you can choose from several templates including windows Application. (√)

22- Solution Explorer window is a component of the IDE. (√)

23- Any project consists of only one form window. (**X**)

24- When you add a new form to the project the default name can't be changed. (**X**)

25- When you save the project for the first time shows the name of the project and the solution is the same. (√)

26-you can add a new project within the current solution or a new solution. (√)

27-The Class is constructed out of Object. (**X**)

28- We have only one way to create a project file ⟶ new project (**X**)

29- When we create a new project a form is created (√)

30- A new form is added to the project from View menu (X)

31- Event is an action performed on the object (√)

32- It is not possible to add a new project to the Solution without saving the first project and solution (√)

33- Visual Basic.Net depends on the objects. (√)

34- The window applications have not a graphical user interface. (X)

35- All the Controls such as the Button, the Textbox, and the Label are objects. (√)

36- Computer understands and executes command written in English only. (X)

37- The solution Explorer has shown the controls properties. (X)

38- Each programming languages contains a compiler translates commands into machine language. (√)

39- The computer cannot understand a program that written in a Visual Basic.Net language (X)

40- The toolbox is a set of buttons that represent shortcuts to execute menu commands. (X)

41- From (file) menu choose (save as); to save project on one of the storage devices. (√)

42- In the Visual Basic.Net language, the object belongs to a certain class. (√)

43- The computer cannot understand a program which written in one of the programming languages. (√)

44- We cannot change the name of the project, which already written after its creation. (X)

45- Class is used to perform the object tasks. (X)

46- The Toolbox is a set of buttons that represent shortcuts to execute menu commands. (X)

47- Each object has a set of properties which refer to the object behavior. (X)

48- Each any button on the calculator is an object and has properties. (√)

49- A place in the memory is reserved for each object in Visual Basic.Net before it is created. (X)

50- All programming languages write orders in English letters. (√)

51- Each language of programming languages contains a compiler. (√)

Second question: complete the following words with appropriate choices

1- Visual basic.Net a --
    a) Programming language   b) IDE   c) Windows application

2- ------------------a collection of orders and instructions are written according to certain rules.
    a) Programming language   b) IDE   c) Windows application

3- Compiler is used to convert ------------------ a language understand by the computer.
    a) Instructions   b) CLR   c) VS

4-GUI means-----------------------------

      a) System Class Libraries   b) GUI   c) Operating environment

5- Mean that Windows applications from in the event that --------------------------

      a) GUI   b) OOP   c) calls code the occurrence of a specific event

6- Refers to the properties of the object as ---

a) describes the object   b) It can be located   c) what it can do object as a behavior

7- Is--------------------------------- The basic constructive element in Object Oriented

Programming languages it is created from a defined class

      a) Properties   b) Object   c) Method

8- Contains ------------------------------------the object definition

      a) IDE   b) CLR   c) Class

9- ------------------------is a central nervous system for all applications of Visual Studio .Net

      a) Visual Studio dot net   b) IDE   c) .Framework

10- Framework provides an environment for running .Net applications, through ………….

      a) CLR   b) programming language   c) Compilers

11-IDE means --

    a- System Class Libraries

    b- Integrated Development Environment

    c- Operating environment

12- One of the components of IDE ---

      a) Properties   b) Object   c) Method

13-In the Properties window displays a list of active Item properties ingredient equivalent
 ----

    a- description of each property

    b- alternative each property

    c- present value for each property

14-Solution explorer Solution Explorer contains------------------------------------

   a- Only one project   b- A maximum of two   c- projects added to the solution

15-To create an application window choose template---

a) Windows forms application   b) Class Library   c) Console Application

16- The number of allowable forms is added to the project is ………………

   a- one only   b- is not restricted to   c- a maximum of two

17-When you save a project in a solution did not save by match name----------------------
    with --------------------

      a- Project name with the name of the Solution

      b- The Project with the IDE

      c- The Solution with the IDE

18- To know the projects that has been added to the resort window -----------
      a) Properties window   b) Tool Box   c) the solution

19- From ……………..… (Save as – Save All – File) menu choose ………………………………
  (Save as – Save All – File) to save the project.

20- From (File) menu choose ………………. To create a new project.
                  (Visual Basic.Net – New project – New form)

21- From (Project) menu choose …………………. To add a new form.
              (Add windows form – Add form – Add window)

22- The computer understands one language is ……………….
           (English language - Machine language - Latin language)

Question 3: Place the appropriate number in front of the column (b), including suited of the column (a)

	A		B
1	Visual Basic.NET	(3)	Is a central nervous system for all applications of dot net
2	Visual Studio.NET	(2)	One of the languages of the dot net
3	.NET Framework	(1)	From the integrated development environment IDE
4	CLR	(….)	Translate orders and instructions written in a programming language into a language understood by the computer
5		(4)	Operating environment for applications of dot net

	A		B
1	compiler	(2)	From the Toolbox Controls
2	Button – Label - Textbox	(3)	That describes the object
3	Properties	(4)	Action that occurs on the object
4	Event	(1)	Translate orders and instructions written in a programming language into a language understood by the computer
5		(….)	Examples of IDE

	A		B
1	**object**	(3)	The Blueprint that the object originates
2	**IDE**	(4)	A set of commands and instructions are written according to certain rules
3	**Class**	(2)	An integrated development environment
4	**Programming Language**	(1)	A specific classification is built

Q4: Complete the following

To add a new project to the (solution), the steps will be as the following:

1) Open **File** Menu
2) Select **Add**
3) Select **New Project** from the sub-menu that will appear.

Q. 5: Give one word

1- Integrated Development Environment (**IDE**)
2- The basic constructive element in Object Oriented Programming languages (**Object**)
3- One of the components of IDE where the tools appear as sets or categories (**Tool Box**)
4- It is the blueprint, from which the individual objects are created object. It has (properties, methods and events) which any created object takes (**Class**)
5- A window in the Visual Basic containing the names of the project and the name of the Project's files and folders. (Solution Explorer Window)
6- A set of instructions or commands which are written in English upon defined rules according to each programming language (**Programming language**)
7- It is the language which the computer understands and executes (**Machine language**)
8- Used to create several applications as: Desktop applications, Web applications (**.Net Framework**)
9- An action which occurs on the object when left clicking on it (**Event**)
10- The window of the application (The user interface); what users will see and work with when they run this application. (**Form**)

Q6- Complete the sentences with the following:

(Object - Class –Visual Studio – .NET framework – Programming language– Form)

1- **Visual Studio** is used in the development and design of (Desktop application) - (Web application) – (Mobile application).

2- Through **Programming language**, Instructions, and commands are written according to certain rules; and then translated to machine language.

3- .NET framework provides an environment that enables developers to design and execute (.NET applications).

4- **Object** is defined as: The basic constructive element in Object Oriented Programming; it is created from a defined class.

5- The blueprint, from which the individual objects are created; is called **Class**

Q7 - Fill in the spaces using one of the following words:

(properties – event - method - Object)

1. PC is considered **Object**

2. PC size is considered **properties**

3. Clicking the mouse inside the window is considered **event**

4. Opening a certain program from PC is as **method**

Q8: Complete the following

1- **Object** has properties, methods and events.
2- The Solution Explorer Window window displays the names of files and folders of the project or projects within the solution.
3- IDE environment used to create applications Windows applications, Web applications and Mobile applications.
4- The length, the width and the color for the object are property
5- Machine Language is the only language understood by the computer and executed.
6- Tool Box contains the controls (objects) that are place on the form.
7- The Solution Explorer and the properties window of the components of IDE
8- IDE Is the abbreviation to the integrated development environment.
9- Programming Language written in English letters, but specific rules vary from one language to another and are translated into machine language.
10- Class it is a blueprint which objects created.
11- Open Project menu and choose Add windows form to add a new form.

Chapter Three

First question: Put (√) or (x):

1- There are no common (Properties) between one (Control) and another. (**x**)
2- Some (Properties) are not effective unless other (Properties) are adjusted first. (√)
3- There are properties of the window form if you were adjust apply also to the tools drawn on the window form. (√)
4- Characterized by properties that do not have default values. (**x**)
5- The default values of the Name, Text properties are the different in the **Form** control. (**x**)
6- **BackColor** property to set the foreground color. (**x**)
7-The property responsible for setting the writing direction of tools on the Form is **RightToLeft**. (√)
8- The property responsible for adjusting the Layout direction of tools on the Form is **RightToLeftLayout**. (√)
9- **RightToLeftLayout** property does not support the **RightToLeft** property. (**x**)
10- Is set to hide Maximize Box make the property value of the MaximizeBox = False. (√)
11-Yo can hide the form outline by the **FormBorderStyle** property. (√)
12- Some (Properties) are not effective unless starting the program. (√)

13- After Start Debugging Cannot stop the program. **(X)**

14- Can control the position of the Form window started to through the **StartPosition**
property. **(√)**

15- Can determine if the from window where the zoom (Maximized, Minimized, Normal)
through the **WindowState** property. **(√)**

16- Command Button is used to perform a specific task by clicking it. **(√)**

17- When you change the position of a command **Button** with your mouse to change the value
of the property **Size**. **(X)**

18- When resizing the command **Button** with your mouse to change the value of the property
Location. **(X)**

19- Is the possibility of changing the size of most controls when put of mouse direction in the
one of the eight boxes after you activates that tool. **(√)**

20-**Font** property for the command **Button** is a text displayed on the command button. **(X)**

21- Size property for the command Button set the height and width of the (Button) on the
Form's window. **(√)**

22- Advantage of the **Label** tool that cannot be written directly by the user. **(√)**

23- To control the size of the **Label** control by the **Size** property. **(X)**

24 - You can adjust **AutoSize** property after adjust the **Size** property of the first. **(X)**

25- In the **TextBox** control you can write any number of letters, numbers and
symbols without a maximum. **(X)**

26- **PasswordChar** property uses to place any symbol appears instead of the text
inside the text box. **(√)**

27- Can write several lines of **Multiline** property in the Textbox control. **(√)**

28- If the **SelectionMode** property you can make select more than one item in **a ListBox.** **(√)**

29- Cannot be in alphabetical order of the elements of the **ListBox** tool. **(X)**

30- By adjusting the **Items** property is put the elements in the **ListBox** and **ComboBox**
controls. **(√)**

31- Can show a list of Suggest for elements of the tool ComboBox By adjusting the
AutoCompleteMode and **AutoCompleteSource** properties. **(√)**

32- **"Group Box"** control is used in grouping a set of controls and displaying them in
one group. **(√)**

34- The **RadioButton** tool is used to display alternatives and the user can choose more than
one. **(X)**

35- By "**GroupBox**" control we can make "**Radiobutton**" control used in choosing more than
one option at the same time. **(√)**

36- The (**Name**) property limit position appears the form window on the screen. **(x)**

37- The value of the text property for a **Form** appears on the taskbar. **(x)**

38- The default value for the text and name property for the first form window is (**New Form**). **(x)**

39- You can't change the location of the Button by clicking and dragging. **(√)**

40- Name property value to the Form window appears in the title bar of the Form window **(√)**

41- **ListBox** control doesn't have Text property. **(√)**

The second question: Complete the following words by matching choices:

1- Are adjusted the RightToLeftLayout property after adjusting -------------------- property

    a) RightLayout   b) LeftLayout   c) RightToLeft

2- ----------------------- property is found in many controls.

    a) Font   b) PasswordChar   c) AutoCompleteSource

3- In the Properties window the left column which represents -----------------------------

    a) Means the methods of active control

    b) Properties of the active control

    c) Properties value

4- Default value for the ----------------------- property match default value of the Text property in Form window.

    a) Tag   b) Name   c) Font

5- To adjust the direction of writing within the Tools in the Form window using ------ property

    a) RightToLeft   b) RightToLeftLayout   c) Text

6- If the **ControlBox** property is set to the **False** value the **ControlBox** is --------------------

    a) becomes unavailable   b) shows   c) disappears

7- Through the --------------------------- property can control the outline of the form window

    a) FormBorderStyle   b) BorderStyle   c) Borders

8- Property---------------------------------Shows the effect after **StartDebugging**

    a) BackColor   b) Text   c) ShowInTaskbar

9- Is the possibility of changing the size of most controls when put pointer of mouse direction in the one of the ……………… after you activates that tool.

    a) eight boxes   b) One of the borders of the tool   c) The middle of the tool

10- Property---------------------------------- Responsible for determining the color of the text that appears on some of the tools

    a) Color   b) BackColor   c) ForeColor

11- To change the size of Label tool use Size property, after adjusting the value of the property AutoSize With ………………….

    a) True.   b) False   c) Yes

12- To adjust the outline of the Label tool use property----------------------
a) BorderStyle   b) FormBorderStyle   c) Borders

13- **TextBox** used in --------------------------------
a) display Form titles   b) receiver input user   c) display a list of items

14- Property ---------------- uses in order of elements in the **ListBox** tool
a) Selection Mode   b) Items   c)Sorted

15- The tool that draped them to view a list of its elements is ----------------------------
a) ListBox   b) ComboBox   c)GroupBox

16- The ------------------------ tool is used to separate the two sets of RadioButton
a) ListBox   b) ComboBox   c) GroupBox

17- The property responsible for identifying alternative chosen in the **CheckBox** and **RadioButton** controls is ----------------------------
a) Select   b) Checked   c) SelectMode

18- The key responsible for StartDebugging is ………………
a) F1   b) F5   c) F7

19- To hide zoom button for the Form window, select property …………….

(False   –   MinimizeBox   –   MaximizeBox)

20- Look at the figure below and then select the property used ………….
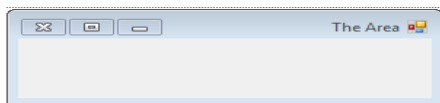
(RightToLeftLayout - RightToLeft - Font)

21- The (**FormBorderStyle**) property have many values if it takes the value …………… it will allow to resize the form using Borders.
(None - False - sizable)

22- The effect (ShowInTaskbar) property appears in status …………….
(Design mode - Run mode   -   Design and Run mode)

23- In order to appear the Form window in the middle of the screen at startup select property …………………
(WindowState - StartPosition – Maximize)

24- The (FormBorderStyle) property have many values if it takes the value ……….. it will allow to resize the form using borders.
(None - False - Sizable)

25- The effect (ShowInTaskbar) property appears in status ………………
(Design mode - Run mode   -   Design and Run mode)

26- In order to appear the Form window in the middle of the screen at startup select property ………….

<div align="center">(WidowState - StartPosition -   Maximize)</div>

Question 3: Place the appropriate number in front of the column (b), including suited of the column (a)

A		B	
1	**PasswordChar**	(4)	Belong to **Form**
2	**AutoCompleteMode**	(1)	Belong to **Textbox**
3	**AutoSize**	(….)	Belong to **ListBox**
4	**ShowInTaskbar**	(2)	Belong to **ComboBox**
5		(3)	Belong to **Label**

A		B	
1	**GroupBox**	(2)	Used in the selection of several alternatives
2	**CheckBox**	(3)	Is used to click it to perform a specific task
3	**Button**	(1)	Includes a number of tools at a specific address
4	**RadioButton**	(4)	Used in the selection of an alternative from several alternatives

Q4- Complete the following table using suitable property:

BorderStyle	Determines the outline border of the Label control.
ForeColor	Adjust the text color which appears on the button.
Name	Contains the name of the button which is used when typing the commands in the Code window.
AutoSize	Change the Label size automatically to fit its contents.
Text	Change the content of the TextBox.

Q5- Second: choose the correct answer:

1. To provide the possibility to choose one and only one item use the control:

    A-RadioButton   B-Checkbox

    C - GroupBox   D-ListBox

2. To allow the selection of one or more items choose the control:

    A.RadioButton   B-Checkbox

    C-GroupBox   D- ComboBox

3. You can choose more than one item if you use:

    A-ListBox   B- ComboBox

    C-GroupBox   D-RadioButton

4. The Solution Explorer window contains:

    A-(Properties)   B (Controls)

    C-Projects   D-All of the above

5. The project can run in test mode by pressing (……) From the keyboard

    A-F2   B-F4

    C-F8   D-F5

6. The value of property (Size) of the buuton1 is **65;34** means that :

    a) The width is 34 and the height is 65

    b) The height is 34 and the width is 65

    c) The length is 34 and the width is 65

7. To copy the command button control from the toolbox to the form window in design mode press ……………… command button control from the toolbox.

    a) Double-click   b) Right Click   c) Left Click

8. The value of property (Location) of the buuton1 is **98;97** means that :

    a) The height is 97 and the width is 98

    b) The width is 97 and the height is 98

    c) The length is 98 and the width is 97

9. The property (Checked), specifies the active control.

        (RadibButton - CheckBox - All of the above)

10. To view the Form properties in properties window, ………….. on it.

        (Click   -   Double-Click   -   Right Click)

11. If you not see the toolbox, you can display it by choosing (toolbox) from the …… menu.

        (file – edit – View – Help)

12. The property …………. have both values (true or False).

        (Enabled – ForeColor – Text – All of the above)

Q6- Completed the following words of the suit between brackets

(BackColor – enabled – Visible – Text - Click – False)

1- You can write on the button using the property **Text**

2- You can show or hide the button by using the property **Visible**

3- You can use property **Backcolor** To change the background color model

4- The feature is used **enabled** To know the response tool for the user program, and whether value **False** The tool dose not respond to the program

Q7- Complete the following sentences from the brackets:

(Items – MaxLenght – True – TextBox – PasswordChar)

1- **TextBox** control is used to input data to program in the start stage.

2- To input data in the ListBox, use **Items** property.

3- When AutoSize property takes the value **True** the control size will fit its contents automatically.

4- **PasswordChar** Property is used along with the TextBox when creating a password.

5- **MaxLenght** property is used to adjust number of the written characters in the TextBox.

Q8- The following table lists the properties of the Label control – match each property with its suitable function.

	Property		Function
1	AutoSize	a	Sets the name of the used control in the program code (4)
2	ForeColor	b	Shows whether the control is automatically resized (1)
3	Font	c	Sets the border style of the control (5)
4	Name	d	Sets the font of the text displayed by the control (3)
5	BorderStyle	e	Sets the text color on the control (2)

Q9- Match from (A) with the suitable in (B)

	A	B
1	TextBox	Display a set of options to select one option only. (3)
2	Button	Creates a list of items to select. (6)
3	RadioButton	Display a set of options to select one or more options. (4)
4	CheckBox	Allows the user to type in it during the run-time. (1)
5	Label	Performs a defined task when clicking on it. (2)
6	ListBox	Displays titles to show the remaining program tools. (5)

Q.10: Rearrange the following steps to adjust the value of the text property of the form window:

(4) Write the new value.

(1) Active Form window.

(3) Delete the old value.

(2) Select the text property value in the properties window.

Q.11: Complete the following statements:

1- The left column in the properites window contains properites name but the right column contains the properites value

2- Property, which allows controlling from at the beginning of his appearance to become a full-screen is WindowState

3- We use (ShowInTaskbar) for show or hide form window icon on the taskbar.

4- To hide the Title bar of the Form window, use FormBorerStyle property.

5- To start the program, use the Start debugging icon in the Toolbar.

6- The control TextBox used for intering data from the user.

7- The control Label used as a heading or title for another controls to let the user know the form's content.

8- The property BackgroundImage Is used to display the image in the background of the control.

9- The propert Checked indicates if the (Radio Button) has been selected or not.

Q12- Pick the different item from the following:

1- "Egypt" – Enabled – True – False

2- Label – Button – Click – Form

3- Name –ForeColor – Font – True

4- VisualBasic.Net – j# - C# - Machine language

5- AutoSize – Enabled – Font – Visible

6- ComboBox – Label – Text

7- Click – True – No

8- Button – ListBox – ComboBox

9- Properties – Algorithm – Event – Method

10- AutoSize – Visible – "Hello" – Enabled

11- Tool Box – Properties Window – Solution Explorer Window – Object

12- Copy – Text - ForeColor - Enabled

Chapter (4)

The first question: Put (√) or (x):

1- Code window from which you can type commands and instructions. **(√)**

2- Code window can be opened only by pressing the F7 key. **(x)**

3- To open the code window for the first time it appears declares a class with the name of the form window. **(√)**

4- You can write the code for the form window below the **End Class** line. **(x)**

5- In the IDE title bar shows the solution name and the name of the user's version. **(√)**

6- You can open the code window by solution window through the shortcut menu for a form window. **(√)**

7- Class Name menu in the Code window shows the events that was chosen from a list of Method Name. **(x)**

8- When you open the list of the **Class Name** the names of the controls matched for a name property each one of them **(√)**

9- Event Handler is an event that calls upon the occurrence of an action **(x)**

10- When create an **event handler** consists of Name of the control and name of the event **(√)**

11- Write the event handler code before the Sub line of the event handler **(√)**

12- You can adjust the properties through the Properties window only. **(x)**

13- To set the properties programmatically using the formula **ControlName.Property = Value** **(√)**

14- In the formula **ControlName.Property = Value** control is represented by a **Value** **(x)**

15- The following code **Label1.Text = "I love egypt"** the value of an object **(x)**

16- in the following code **Label1.ForeColor = Color.Red** the value from the list **(√)**

Second question: Complete the following words by matching choices

1- You can open the Code Window by pressing a key-----------------------
     a) F5   b) F7   c) F1

2- The end of the line classification writes --------------------------------code
     a) before   b) after   c) before and after

3- Name the event handler when you create through IDE consists of -----------------------------
     a) Name of the control
     b) The name of the event
     c) Name of the control and name of the event

Class Name list in the code window displays --
- a) <mark>Names of controls on the form</mark>
- b) events that could occur on a control
- c) the names of the various event handlers

5- Method Name list in the code window displays--------------------------------------
- a) Names of controls on the form
- b) <mark>events that could occur on a control</mark>
- c) the names of the various event handlers

6- To set the properties programmatically using the formula **ControlName. ……… = Value**
<mark>a) Property</mark>   b) Event   c) Method

7- Type the value for the following sentence   **Label1.Enabled = True**
a) <mark>logical</mark>   b) abstract   c) from list

Question 3: Place the appropriate number in front of the column (b), including suited of the column (a)

A		B
1	**Class Name** <mark>(3)</mark>	display Events of the selected control
2	**Code Window** <mark>(1)</mark>	displays the names of the controls on the Form window
3	**Method Name** <mark>(2)</mark>	From which you can write orders and instructions
4	**End Sub** (….)	The end of the line classification
5	<mark>(4)</mark>	The end of the line event handler

A		B
1	**Sub Button1_Click** <mark>(2)</mark>	Means the event handler
2	**Event Handler** <mark>(3)</mark>	Formula set properties programmatically
3	**ControlName.Property=Value** <mark>(1)</mark>	Name an event handler
4	**End Class** <mark>(4)</mark>	The end of the line classification
		The end of the line event handler

Q4- Type the necessary code executing the following:

a) Changing the text on "Button1" into "computer"

Button1.Text = "Computer"

b) Changing the background color of "Button1" control into "Blue".

Button1.BackColor = Color.Blue

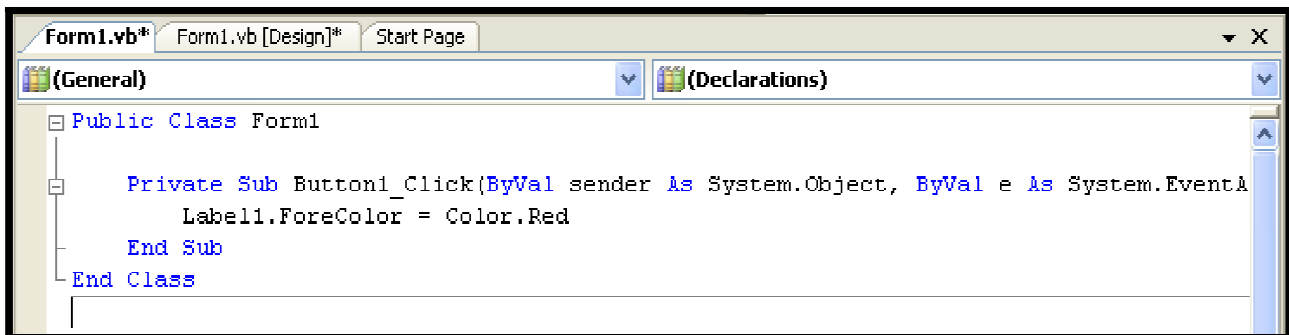c) Changing the font color on "Button1" control into "Red".

Button1. ForeColor = Color.Red

d) Deactivate "Button1" control.

Button1.Enabled = False

e) Make "Button1 "Control invisible.

Button1.Visible = False

```
Form1.vb*  Form1.vb [Design]*  Start Page                                        ▼ ✕
(General)                                    ▼   (Declarations)                    ▼
  Public Class Form1

      Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As System.EventA
          Label1.ForeColor = Color.Red
      End Sub
  End Class
```

Q5- from the Code window in the figure, complete the following:

1- **Click** is the name of the event where the code is written.

2- **Label1** refers to the object which will be adjusted.

3- **ForeColor** is the property which value will be adjusted.

4- The effect of this code when starting the program **Change the color of writing into Red**

5- **Button1** is the object on which the event will occur.

Q6- What do the numbers in the figure indicate?
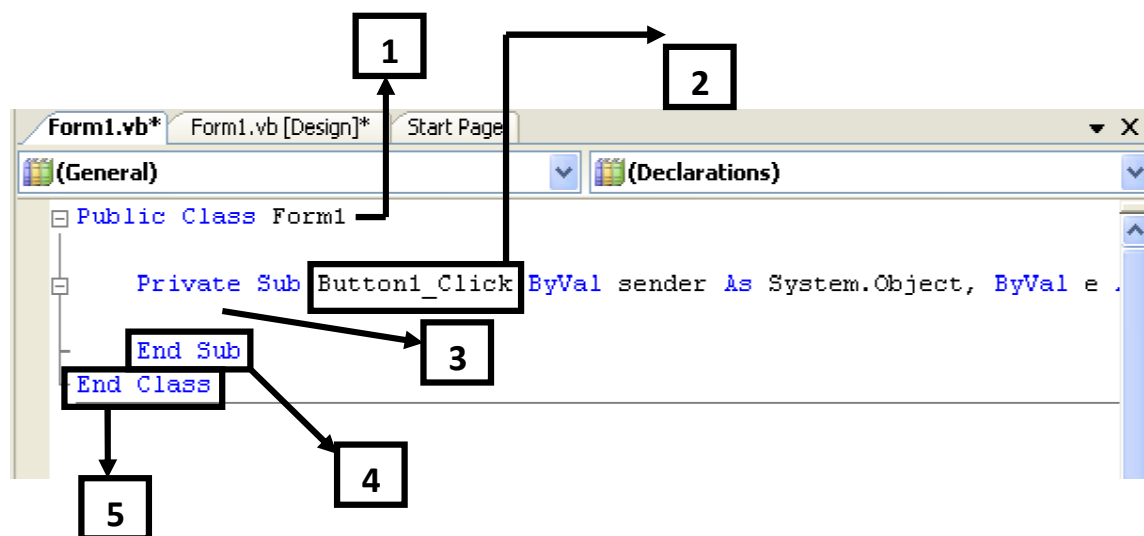
1- The declaration of the Class (**Form1**).

2- The procedure name composed of (**object name, event name**), (**Button1, Click**)

3- Between the two lines shown, you can write statements or codes that will be executed after invoking the procedure.

4- The end of the procedure

5- The end of the Class

Q7- Complete the following sentences from the brackets:

(Font – End – MethodName – Event Handler – Enabled)

1- **Font** property is used to adjust the font style and size.

2- We can end the program by writing **End** in the Event Handler.

3- **Event Handler** Refers to the invoked procedure when event occurs.

4- **Enabled** Property sets the object response to the user during the program run-time.

5- **MethodName** Menu in the Code window displays the names of the events related the object.